

## **REMARKS:**

Claims 1-8, 10, 12, 14, 17-32, 40-44, 47-50, 52, 54, and 55 remain pending in the application. Claims 17, 23, 50, 52, and 56 are amended.

Support for the amendments can be found throughout the specification, including but not limited to: Fig.1; Figs. 3-5; page 4, line 8 to page 5, line 4; page 8, lines 4-24; page 9, line 23 to page 10, line 8.

### **Allowable Subject Matter**

Applicant appreciates the Examiner's indication of allowable subject matter in independent claim 1 and independent claim 23 (currently objected to for informalities, but also amended herein). *See* Office Action at 2 and 18.

### **Examiner Interview**

The undersigned thanks the Examiner for the courtesy of interviewing this case via telephone on April 5, 2011. During the interview, rejected claims 17 and 56 were discussed in view of the references applied by the Examiner in the present action. No formal agreement was reached.

### **Claim Objections**

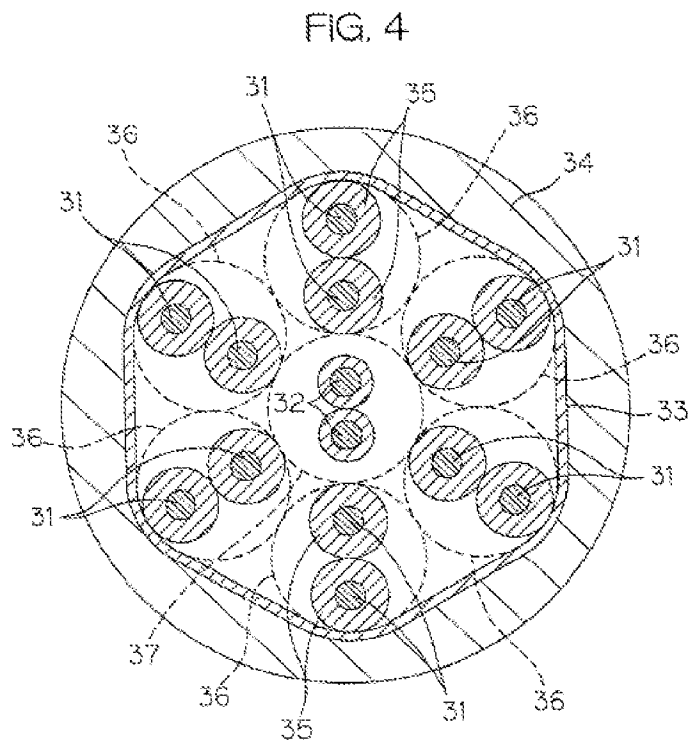
Claim 23 stands objected to for informalities. *See* Office Action at 2. Applicant has amended claim 23, and respectfully requests withdrawal of the objections to claim 23 and its dependent claims.

### **Section 103 Rejections of Claims 17, 50, and 52**

Independent claims 17, 50, and 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hosaka et al. (U.S. Patent No. 6,448,500) in view of Leyba et al. (U.S. Patent No. 6,276,502), Iseli et al. (U.S. Pub. No. 2005/0083784), and Beinhaur et al. (U.S. Patent No. 4,834,673). Office Action at 3. Applicant disagrees with these rejections, but has also amended the claims to advance prosecution.

With respect to claim 17, the Examiner asserts that "Hosaka et al. discloses a cable comprising a first section including at least four unshielded twisted-wire pairs configured to

carry data,” and cites to Hosaka’s Fig. 4 (reproduced below) as support. *See* Office Action at 3.



***Hosaka’s Fig. 4***

In Hosaka’s cable of Fig. 4, “pairs of balanced unshielded twisted pair wires 31” are used “for signal transmission.” Hosaka at col. 1, lines 33-34. Hosaka teaches that “power supply pair wires 32 are disposed at the center of the structure of the cable, and the six twisted pair wires 31 are disposed in an annular array around the power supply pair wires 32.” *Id.* at col. 1, lines 37-40. The Examiner concedes that Hosaka fails to teach or suggest several elements of claim 17, and turns to the Leyba, Iseli, and Beinhaur references for additional support. *See* Office Action at 4-5.

Leyba is cited as “disclos[ing] a cable with separate power and data connectors located at either end of the cable.” Accordingly, the Examiner contends the proposed combination of Hosaka with Leyba would teach or suggest additional elements of claim 17. *See* Office Action at 4. Applicant assumes *arguendo* the Examiner’s contentions regarding Leyba for the purposes of this response, but reserves the right to present arguments against Leyba in future responses or appeals.

The Examiner next cites the Iseli reference, and asserts that it “discloses a cable [of]

greater than 100 meters in length” that “carr[ies] data at 100 Mbps.” *See* Office Action at 4-5. Applicant respectfully disagrees. Iseli features a “cable 300 compris[ing] wire conductors 302 and repeater modules 304.” Iseli at ¶0037 (emphasis added). In Iseli, “each repeater module 304 is a bidirectional device adapted to receive a data package and retransmit the data package after conditioning the package signal.” *Id.* Applicant further notes that Iseli teaches that “standard 100 Mbit Ethernet will support only cable lengths up to 100 meters with commercially available cable” (emphasis added). *Id.*

Applicant has nonetheless amended the claims for clarity and to further distinguish over the cited art. Claim 17 now recites that “the at least four unshielded twisted-pair wires included in the first section of the cable are uninterrupted over a length greater than 100 meters, and wherein the insulated wires configured to carry power are between 10 and 16 gauge and are further configured to carry a current of up to 60 amperes without impeding the ability of the at least four unshielded twisted-wire pairs to carry data at 100Mbps over the length greater than 100 meters.” Applicant submits that Iseli’s “repeater modules 304” would necessarily interrupt the “wire conductors 302” within its cable. *See, e.g.,* Iseli at Fig. 3. Accordingly, even if Iseli were combinable with Hosaka and Leyba, such a combination would fail to teach or suggest the abovementioned elements of amended claim 17. Independent claims 50 and 52 have been similarly amended, and are therefore further patentably distinct over the proposed combination including Iseli.

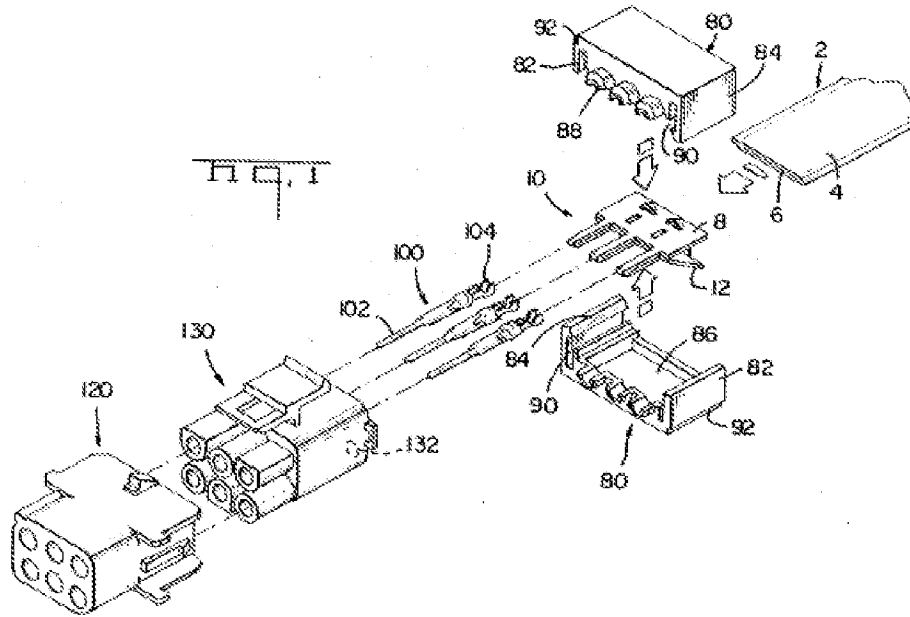
Applicant thus respectfully submits that for at least the reasons above, the proposed combination of references fails to teach or suggest each and every element of amended claim 17. Applicant respectfully submits that those references fail to make a *prima facie* case of obviousness under 35 U.S.C. § 103(a). *See* MPEP § 2143.03 and § 706.02(l)(3). Applicant requests withdrawal of all § 103 rejections of claim 17 and its dependent claims, and for at least similar reasons to those argued above, also requests withdrawal of the § 103 rejections of claims 50, 52, and their respective dependent claims.

Applicant also submits that claim 17 is patentably distinct over the Examiner’s proposed combination for additional reasons. The Examiner’s rejection relies on Beinhaur as disclosing “carrying a current up to 60 amperes using a cable with a gauge between 10 and 16.” *See* Office Action at 5. The Examiner asserts that “it would have been an obvious design choice for one of ordinary skill in the art at the time of the invention to combine using a cable that is of a sufficient

gauge to support currents up to 60 amperes . . . with the system and method of Hosaka, Leyba, and Iseli.” *See id.* at 5-6. Applicant disagrees.

The elements of the current and former version of claim 17, which recite “a current of up to 60 amperes,” cannot simply be taken in isolation from other aspects of that claim. While the Examiner asserts that “the exact ampere rating and gauge of a cable used to supply power is an obvious design choice,” *see* Office Action at 5, both the current and former version of claim 17 recite a length “greater than 100 meters ... wherein the insulated wires configured to carry power are between 10 and 16 gauge and are further configured to carry a current of up to 60 amperes without impeding the ability of the at least four unshielded twisted-wire pairs to carry data at 100Mbps.” Applicant is thus not merely reciting “wires configured ... to carry a current of up to 60 amperes,” but the entirety of the elements above. A mere teaching that a power cable, such as Beinhaul’s, is capable of carrying 60 or more amperes of power is insufficient to conclude that the above elements of the current and former version of claim 17 would have been obvious in view of the Hosaka, Leyba, and Iseli references. Applicant’s recitation of “60 amperes” in claim 17 must be considered within that claim’s full context.

Indeed, Applicant submits that it is unclear whether Beinhaul’s teachings would be applicable at all to the Hosaka reference in the manner suggested by the Examiner. Beinhaul’s “invention relates to the utilization of a flat conductor cable [2] as a means for power distribution.” *See* Beinhaul at col. 3, lines 27-29 (emphasis added) and at Fig. 1 (element 2) (reproduced below).



***Beinhaur's Fig. 1***

Applicant submits that one of skill in the art would not have substituted Beinhaur's "flat conductor cable 2," *see id.*, with Hosaka's "power supply pair wires 32 [that] are disposed at the center of [a] structure" where "twisted pair wires 31 are disposed in an annular array around the power supply pair wires 32," *see Hosaka* at col. 1, lines 37-40. Applicant contends that no such substitution would have been obvious, for example, because Beinhaur teaches that "it is an object of [its] invention to devise a versatile power distribution system utilizing flat power conductors," *see Beinhaur* at col. 2, lines 5-7, while Hosaka states that its "invention has been made ... for its object to provide a balanced transmission shielded cable in which crosstalk hardly occurs." Applicant thus submits that a person of skill in the art would not have combined or substituted Hosaka's "power supply pair wires" with Beinhaur's "flat conductor cable" to teach or suggest each and every element of either the former or current version of claim 17. Similar remarks apply to claims 50 and 52, and Applicant accordingly submits that claims 17, 50, and 52 are thus further patentably distinct over the cited art.

#### Section 103 Rejection of Claim 56

Claim 56 stands rejected as being unpatentable under 35 U.S.C. § 103(a) over Henderson et al. (U.S. Patent 7,577,857) in view of Iseli. Office Action at 15. While Applicant respectfully

disagrees, Applicant has amended the claims in order to advance prosecution of the case.

The Examiner admits that Henderson fails to teach or suggest “use of a cable that is over 100 meters in length,” and turns to Iseli to remedy this failure. *See id.* at 16. However, amended claim 56 recites that a “first set of wires is uninterrupted over a length of greater than 100 meters,” and that “the network device is configured to transmit data via the cable at 100Mbps over the length greater than 100 meters by employing the first physical layer transceiver at a lower than specified clock rate.” Thus, the above-noted shortcomings of if Iseli regarding its “repeater modules 304,” *see* Iseli at ¶0037, are also applicable to claim 56. Accordingly, even if Iseli were combinable with Henderson, such a combination would fail to teach or suggest each and every element of claim 56. Applicant therefore respectfully requests withdrawal of the § 103 rejections of claim 56 and its dependent claims.

**CONCLUSION:**

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicant hereby petitions for such extension.

The Commissioner is authorized to charge any fees that may be required, or credit any overpayment, to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account No. 501505/5957-03700/AAC.

Respectfully submitted,

Date: April 29, 2011

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